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Appendix 1. Characteristics of Acute Care Hospitals Participating in the Texas Gulf Coast Sepsis Network (TGCSN), 2011 Data and Facility Plans for the Sepsis Early Recognition and Response Initiative (SERRI)*							
Facility Attributes	**Acute Care Hospital 1 (Convener Facility, HMH)†**	**Acute Care Hospital 2**	**Acute Care Hospital 3**	**Acute Care Hospital 4‡**	**Acute Care Hospital 5**	**Acute Care Hospital 6**	**Total**
Type	Not for profit, church owned	Not for profit, church owned	Not for profit, church owned	For profit, investor owned	For profit, investor owned	Not for profit, church owned	—
Part of multihospital system	Yes	Yes	Yes	Yes	Yes	No	—
Electronic health record system	Allscripts SCM 5.5®§	Allscripts SCM 5.5®§	Allscripts SCM 5.5®§	MediTech®	MediTech®	MediTech®	—
No. of adult beds	779	166	140	391	320	199	1,995
No. of ICU beds	134	20	24	42	26	36	282
Surgery volume‖	15,495	3,750	2,306	4,992	4,368	3,883	34,794
No. of discharges, total	36,613	11,092	12,667	18,331	12,907	16,295	107,905
No. (%) discharges that are sepsis-associated#	1,563 (4.3)	703 (6.3)	533 (4.2)	1,217 (6.6)	949 (7.4)	821 (5.0)	5,786 (5.4)
No. (%) discharges reimbursed by CMS	20,936 (57.2)	5,617 (50.6)	8,270 (65.3)	12,245 (66.8)	9,179 (71.1)	7,744 (47.5)	63,991 (59.3)
No. (%) discharges that were Medicare beneficiaries	18,605 (50.8)	4,850 (43.7)	5,941 (46.9)	4,836 (26.4)	3,652 (28.3)	5,948 (36.5)	43,832 (40.6)
No. (%) discharges that were Medicaid beneficiaries	2,331 (6.4)	767 (6.9)	2,329 (18.4)	7,409 (40.4)	5,527 (42.8)	1,796 (11.0)	20,159 (18.7)
Facility Plans for SERRI							
Units, types of patients to be targeted	1 ICU, 1 IMCU, 1 Obs, 22 medical/ surgical units	1 ED, 1 ICU, 6 medical/ surgical units	1 ED, 4 medical/ surgical units	**Campus 1:** 1 ICU, 1 IMCU, 5 medical/ surgical units (includes 1 telemetry, 1 surgical, 2 medical, 1 geriatric/ psychiatry) **Campus 2:** 1 ICU, 1 IMCU, 3 medical/ surgical units	6 medical/ surgical units (includes 2 medical, 1 surgical, 1 stroke, 1 oncology, 1 telemetry)	6 medical/ surgical units (includes 1 medical, 1 surgical, 1 stroke, 1 oncology, 1 pediatric [adult overflow], 1 telemetry)	—

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Appendix 1. Characteristics of Acute Care Hospitals Participating in the Texas Gulf Coast Sepsis Network (TGCSN), 2011 Data and Facility Plans for the Sepsis Early Recognition and Response Initiative (SERRI)* (continued)							
Facility Plans for SERRI	**Acute Care Hospital 1 (Convener Facility, HMH)†**	**Acute Care Hospital 2**	**Acute Care Hospital 3**	**Acute Care Hospital 4‡**	**Acute Care Hospital 5**	**Acute Care Hospital 6**	**Total**
% hospitalwide sepsis-associated stays# (not just SERRI units) that are screened and part of SERRI at full SERRI implementation**	73.0 (fully implemented Nov 18, 2013)	81.0 (fully implemented Dec 9, 2013)	87.0 (fully implemented Feb 24, 2013)	98.0 (fully implemented May 28, 2013)	91.0 (fully implemented Jun 3, 2013)	57.0 (fully implemented Oct 15, 2013)	—
% stays covered by SERRI, regardless of whether sepsis-associated# or not, that are of CMS beneficiaries††	52.4	45.0	56.2	51.6	60.8	56.6	—

IMCU, intermediate care unit; Obs, observation (unit); ED, emergency department.

* Data given are for 2011, the year the SERRI project was proposed to the Centers for Medicare & Medicaid Services (CMS) Innovation Center.

† At the convener facility, Houston Methodist Hospital (HMH), the SERRI award enabled expansion of the sepsis program to additional clinical units.

‡ This site has two campuses separated by more than 10 miles but operates under one license.

§ An Allscripts® product modified to meet local requirements.

‖ Includes cardiac, vascular, neurosurgery, general surgery, orthopedics, obstetrics/gynecology, and urology procedures.

A sepsis-associated stay in an acute care hospital is defined as a stay with one or more International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) codes for sepsis listed on the discharge abstract.

** This is a measure of the extent to which the type and number of clinical units targeted for SERRI coverage in an acute care hospital, taken together, cover all the patients treated for or with sepsis at that hospital.

†† CMS beneficiaries (adults) include persons enrolled in traditional Medicare (Medicare Parts A and B), Medicare Advantage (Medicare Part C), Medicaid, and those covered by Medicare as well as Medicaid. The percentage is based on persons screened after full SERRI implementation at the site.

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Appendix 2. Characteristics of Long Term Acute Care Hospitals (LTACHs) and Skilled Nursing Facilities (SNFs) Participating in the Texas Gulf Coast Sepsis Network, and 2011 Data Facility Plans for the Sepsis Early Recognition and Response Initiative (SERRI)*					
Facility Attributes	**LTACH 1**	**LTACH 2**	**LTACH 3**	**LTACH 4**	**Total**
Type	For profit, investor owned	For profit, investor owned	For profit, investor owned	For profit, investor owned	—
Part of multihospital system	Yes	Yes	Yes	Yes	—
Medical record system	ProTouch®	ProTouch®	Paper	Paper	—
No. of adult beds	91	62	80	73	306
No. of ICU beds	9	12	6	10	37
No. of discharges, total	882	938	593	769	3,182
No. (%) discharges that were Medicare beneficiaries	552 (62.6)	795 (84.8)	339 (57.2)	414 (53.8)	2,100 (66.0)
Percentage of returns to acute care hospitals that are for suspected sepsis[†]	Not available	Not available	37	74	—
Facility Plans for SERRI					
No. (%) beds targeted for SERRI	100 (100)	74 (100)	86 (100)	83 (100)	343 (100)
% Medicare beneficiaries to be targeted	100	100	100	100	100
% stays covered by SERRI that are of CMS beneficiaries since launch of SERRI (all 4 LTACHs launched SERRI in October 2013)	55.9	83.1	72.3	96.0	—
Facility Attributes	**SNF 1**	**SNF 2**	**SNF 3**	**SNF 4**	**TOTAL**
Electronic health record system	Allscripts SCM 5.5®‡	Allscripts SCM 5.5®‡	PointClickCare®	PointClickCare®	—
No. of licensed skilled nursing beds, adults	50	58	100	112	320
No. of stays (admissions) 2012	1,152	751	108	293	2,304
% stays with Medicare as payer	62.0	89.0	65.0	65.0	—
No. (%) Medicare-paid SNF stays that have a return to an acute care hospital within the first 30 days of the SNF stay[§]	187 (16.3) (2012 data)	69 (9.1) (2012 data)	Not yet available	Not yet available	—
Facility Plans for SERRI					
No. (%) adult beds targeted	50 (100)	58 (100)	100 (100)	112 (100)	320 (100)
No. of Medicare beneficiaries to be targeted[‖]	714	668	70	190	1642

CMS, Centers for Medicare & Medicaid Services; TGCSN, Texas Gulf Coast Sepsis Network.

* Data given are for 2011, the year the SERRI project was proposed to the CMS Innovation Center, with the exception of the SNFs, which joined the TGCSN in 2013 and for which 2012 data are given.

† At the time a patient in an LTACH or SNF is nonelectively returned back to an acute care hospital for a sudden deterioration in condition, the LTACH or SNF has no way to confirm what is actually the medical cause of the deterioration; LTACH and SNF personnel may suspect that it is due to sepsis and record that suspicion, but confirmation can be done only at the receiving facility.

‡ An Allscripts® product modified to meet local requirements.

§ These returns to acute care may or may not be for sepsis.

‖ Computed by multiplying the number of stays in 2012 by the percentage of stays for which Medicare was the payer.

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Appendix 3. Tailoring and Staggering of Sepsis Early Recognition and Response Initiative (SERRI) Implementation Elements to Accommodate Site-Specific Realities and Conditions

Facility Attributes	ACH 1 (Convener facility, HMH)	ACH 2	ACH 3	ACH 4*	ACH 5	ACH 6	LTACH 1	LTACH 2	LTACH 3	LTACH 4	SNF 1	SNF 2	SNF 3	SNF 4
Type of first responder	RN	RN	RN	RN, LVN	RN, LVN	RN, LVN	RN, LVN	RN, LVN	RN, LVN	RN, LVN	RN	RN	RN, LVN	RN, LVN
Type of second responder	NP	NP, ED MD	NP, ED charge RN, ICU charge RN	NP, ICU charge RN	NP, ICU charge RN	NP, CCU charge RN	House supervisor RN; if orders required, house MD	House supervisor RN; if orders required, house MD	House supervisor RN; if orders required, house MD	House supervisor RN; if orders required, house MD	NP	Charge RN, house supervisor RN, manager RN	NP, director or assist. director of nursing RN	NP, director or assist. director of nursing RN
Type of local educator	Facility educator	Facility educator, sepsis NP	Facility educator, sepsis NP	Facility educator, sepsis NP	Facility educator, sepsis NP	Facility educator, sepsis NP	Facility educator	Facility educator	RN, RN manager	RN, RN manager	Facility educator	Facility educator	Sepsis NP, director of nursing RN	Sepsis NP, director of nursing RN
First responder training completed	M6	M6	M7	M11	M11	M9	M15	M15	M15	M15	M17	M17	M23	M23
Second responder training completed†	M6	M6	M7	M11	M11	M9	M15	M15	M15	M15	M6	M7	M23	M23
Sepsis CMPI Committee functional	M1	M8	M8	M12	M12	M10	M15	M15	M15	M15	M1	M8	M10	M10
Sepsis/SIRS screening tool format	Integrated into EHR	Integrated into EHR	Integrated into EHR	Integrated into EHR	Integrated into EHR	Screening tool integrated into EHR; paper is used for second response	Stand-alone website	Stand-alone website	Paper	Paper	Integrated into EHR	Integrated into EHR	Stand-alone website	Stand-alone website
Months required for integration into EHR	0	0	0	6	6	8	n/a	n/a	n/a	n/a	0	0	n/a	n/a

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Appendix 3. Tailoring and Staggering of Sepsis Early Recognition and Response Initiative (SERRI) Implementation Elements to Accommodate Site-Specific Realities and Conditions (continued)

Facility Attributes	ACH 1 (Convener facility, HMH)	ACH 2	ACH 3	ACH 4*	ACH 5	ACH 6	LTACH 1	LTACH 2	LTACH 3	LTACH 4	SNF 1	SNF 2	SNF 3	SNF 4
Months required to bring Web-based tool on line	n/a	n/a	n/a	n/a	n/a	n/a	12	12	15	15	n/a	n/a	est. 24	est. 24
Start of SERRI pilot	M6	M7	M8	M12	M12	M9	M16	M16	M16	M16	M17	M17	M24	M24
Launch of full SERRI program at all designated site units and patients	M19	M19	M8	M12	M12	M22	M16	M16	M16	M16	M17	M17	M24	Target: M25
Qualitative assessment of site-level SERRI leadership‡	Both	Both	Top down	Top down	Top down	Bottom up	Top down	Top down	Top down	Top down	Top down	Top down	Bottom up	Bottom up

ACH, acute care hospital; HMH, Houston Methodist Hospital; LTACH, long term acute care hospital; SNF, skilled nursing facility; LVN, licensed vocational nurse; NP, nurse practitioner; ED: emergency department; CCU: coronary care unit; M, month of the 36-month project period in which the element was completed; CMPI, Care Management Performance Improvement; SIRS, systemic inflammatory response syndrome; EHR, electronic health record; n/a, not applicable; est., estimated.

* This site has two campuses separated by more than 10 miles but operates under one license.

† Month given is when a critical mass of second responders completed training before SERRI was launched at the site. After the launch, newly hired or newly designated second responders are trained as needed on an ongoing basis.

‡ Represents the SERRI Program Office's qualitative assessment of the site's organizational level from which most of the SERRI impetus for SERRI implementation comes. When both top-down and bottom-up leadership exist at a site, it is considered to be a mark of a mature SERRI program that will be sustainable without the efforts of the SERRI Program Office and Centers for Medicare & Medicaid grant funding.

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Appendix 4. Sepsis Early Recognition and Response Initiative (SERRI) Program Site Implementation Assessment

SERRI Program

Sepsis Early Recognition and Response Initiative

SITE IMPLEMENTATION ASSESSMENT:

This is a tool to help you think through the key decisions that need to be made prior to implementing the SERRI program on nursing units.

TRAINING TIMELINE:

1) Please help us make sure that the right individuals at your organization are aware of the target completion dates for the below activities. We're aware that each facility has its own challenges, and these can be adjusted as appropriate:

Task	Target Completion / Timeframe
Train the Trainer	
Second Level Responder – Simulation Training (Simulation Lab)*	
Bedside Nurse training	
LVN / PCA Training	
Target Go-Live	

*Prerequisite – Complete Sepsis Comprehensive Online Coursework

CLINICAL IMPLEMENTATION PREPARATION PLAN:

2) What units do you plan to roll out sepsis screening in? _____

3) What time frame do you plan to implement the screening to take place daily? _____

4) Do you have an ongoing training plan in place? _____

5) Who will be appointed as super-users? _____

6) When will patients who have a positive sepsis screen be reviewed? _____

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Appendix 4. Sepsis Early Recognition and Response Initiative (SERRI) Program Site Implementation Assessment (continued)

7) Who will perform weekly assessments on compliance with random spot checks?_____

8) How will the bedside nurses' online training and testing be handled? How will completion of training be tracked/documented: _____

9) How will the sepsis training be incorporated into nurses' annual competency? _____

10) Do you have any screening tools in place currently? _____

11) How will your facility handle a positive screen? _____

12) Do you have any training material/setup preference?_____

13) Would you like to tour one of our sepsis screening units? _____

    If so, please contact your Site Liaison.

14) What is the procedure and clearance for the Site Liaison to tour your site to get a better sense of your facility to further assist you in a more customized way? _____

<u>SITE LIAISON CONTACT INFORMATION:</u>

Name
Post-Acute Care Site Liaison
Phone:
Email:

Name
Acute Care Site Liaison
Phone:
Email:

LVN, licensed vocational nurse; PCA, patient care assistant.